

worthy citizens—they will prove by their deeds that the discovery of truth and practice of goodness are the noblest objects of life.

#### SCHOOL COURSE THE BEST PREPARATION FOR THE DUTIES OF LIFE.

The public school is a miniature world, and its emulation, trials and triumphs are the best preparation for the battle of life. Private instruction may perhaps be best adapted for training youth to habits of virtue and piety; but if the affections and passions of human nature be not properly directed and duly restrained by a firm hand during childhood days, manhood is apt to be barren—totally devoid of those qualifications and accomplishments

"Which adorn youth, and cheer with brilliant rays,  
The fading spirit of winter's gloomy days."

Parental affection frequently nullifies parental authority. As a necessary consequence the child is indulged intemperately, and all the evil propensities of human nature develop themselves unchecked. It is seldom so in the public school or collegiate institute. In those places the various powers of the mind are called into activity by the noble influence of example. Emulation is excited, and every pupil knows and feels that shame and disgrace are sure to follow idleness. In those national institutions, the obstinate heart is induced to yield a willing obedience; friendships are formed which endure forever; equality is felt, and no superiority acknowledged except that of merit: the diffident and shy become confident and bold; the rude learn politeness, and literary improvement is pursued by all. Some learn from their companions, others from their books and teachers; but the fires of zeal and emulation gradually seize upon all—upon even the most indolent. Here, as the mind of the child or the youth gradually expands and he proceeds on his way to the temple of learning, he will have the sweet companionship of fellow-travelers. He will learn to esteem the noble qualities of generosity, gratitude and courage, and be led to despise or detest perfidy, ungratitude and selfishness, because his companions do so. The good he will be taught to cherish in his heart and treasure up in his bosom, whilst he learns to shun evil as if it entailed instant death. Finding therefore that his reputation depends on his own conduct, and being constantly impelled to act with decision, his mind will gradually expand, whilst he attains a certain firmness and manliness of character otherwise unattainable. He will thus learn to feel that patience and energy, perseverance, fortitude and industry are the true elements of success, whilst he becomes convinced that real merit, like a river ("the deeper it is the less noise it makes"), is silent in proportion to its depth.

It is absolutely necessary that those who are destined to occupy important positions in society, should enjoy the advantages of a good, sound, liberal education—an education which will tend to fit them for their future calling. One of the greatest duties the men of the present owe to posterity, is to make a liberal provision for the efficient education of the rising generation. Should they not do so, their sin will be visited on their posterity "to the third and fourth generation." This public provision should be national. Every parent, rich or poor, should be compelled to send his child to some public school—that is, a school taught by a teacher or teachers licensed by Government—for each child in a country is as much the child of the nation as it is the child of the parent; the nation, therefore, should see to its welfare.

The success in life of each child depends on the cultivation of its talents by appropriate studies—on the proper training or development of its intellect—on the amiability of its disposition and the morality of its early youth. Public schools are the best arenas for affording the necessary training for success in life. Parties educated by tutors at their own private residences are frequently noted for their awkwardness and timidity. Moreover they seldom fail to contract the habit of looking upon the world through a narrow bigoted channel. Others again, not having the opportunity of coming in contact with very enlightened or superior minds, imagine themselves to be beings of gigantic intellect, of angelic mould—by birth, position and education, worthy of the worship of their fellow-men. Alas! poor creatures! their self-conceit and imaginary importance only excite the pity of their friends and the contempt of their acquaintances. They go out into the world, they come face to face with men and women, they then become conscious of their own insignificance—they discover at last that they are nonentities, and pray to the prairies of the west and the forests of the east to hide them from the cold cheerless world; from the illiterate (!) sons of science who laughed at their pretensions; from those parties who are incapable of appreciating their rare qualities!!! Often have we known such parties—often have we smiled as we listened to the crowd imitate the scream of the eagle. Ignorance and inexperience are only excuses for such erratic pretensions—such selfish stupidity. So far as we could learn such parties never enjoyed the advantages of a good public school education. The foolish pride of parents, the culpable vanity of caste—antiquated ideas of a dark and

barbarous age—clinging to the skirts of their garments, prevented them from enjoying such benefits. Their education, such as it is, was imparted by private tutors *only*, and they have probably been instructed without being educated. At all events they are too ignorant to be conscious of their own deficiencies. How deplorable is such a state of things!

In the education of our children, if we are to have a choice between the public school and private tutors, by all means let us have the former with all its faults; but if possible let us have both together. When children are very young, mothers are their best teachers, and governesses are the mothers' best substitutes. When they grow older the public school should be their goal. Our candid opinion is that, thenceforth until they emerge from the universities, private tuition (if it can be procured) should go hand in hand with public education—the former being secondary to the latter. Such also is the opinion of several eminent educators whom we have consulted concerning this matter. Parties availing themselves of the advantages of both systems will not regret their conduct. At all events they will be acting prudently, and "prudence is said to be the foot-print of wisdom."

## I. Papers on Practical Education.

### 1. SCHOOL-ROOM ILLUSTRATION.

In the present article, a few experiments illustrative of the more important "Properties of matter" will be described. It will be convenient in performing these, as well as many other experiments, to have a few *glass vessels*; those commonly called beaker glasses, arranged in nests of capacity from one to three ounces, and from one pint to a half gallon, will be most suitable. Some quart specie jars, and a dozen test tubes will also be of great utility. In the absence of such vessels, use tumblers, canning jars, etc.

1. *Impenetrability*.—Take a glass vessel of the largest size half full of water, place upon this a piece of wood and press an inverted glass jar into the water. It will be observed that the wood sinks, and that the water rises in the outer jar, but not in the inverted jar. Substitute for the wood a candle about an inch long arranged on a small piece of wood to float it; light the candle and press the inverted jar down quickly over it; the candle remains burning, which proves conclusively that the air prevents the water from rising.

2. *Inertia*.—The inertia apparatus usually consists of a short wooden pillar about an inch in diameter, with a spring arranged beside it. On the top of the pillar is placed a card, on this a ball, the card is then struck by the spring and driven out so quickly that the ball, in consequence of its inertia, remains. Make a support of the two fingers and thumb of the left hand, on this place a card and a penny; strike the card horizontally with the middle finger of the right hand; it will fly out, and the penny will be left upon the fingers. A little practice will soon enable the experimenter to use but one finger for the support.

3. *Divisibility*.—Into a quart of water place one grain of nitrate of silver and a small quantity of common salt. A white precipitate of the chloride of silver will be formed, and render turbid the whole of the water. The grain of nitrate of silver has probably been divided into millions of parts. This property is also beautifully shown by using one grain of prussiate of potash with either muriate of iron or sulphate of copper. If Indigo or "blue" can be obtained more easily than the chemicals, an exceedingly small quantity of this substance will color several gallons of water.

4. *Porosity*.—Fill a small vessel with alcohol, and then place gently into it a large quantity of cotton, without permitting the alcohol to overflow. The cotton is supposed to occupy the spaces between the particles of alcohol. A vessel may be filled with water, and then a considerable portion of salt and afterwards sugar may be added; as into a bucket of apples, a number of peas and then some clover-seed can be placed.

5. *Expansibility*.—A thermometer, which should be in every school room, admirably illustrates the expansibility of mercury or alcohol. To hasten the expansion and contraction, breathe upon the bulb, and let the pupils observe the height of the liquid, then place the bulb in cold water, and indicate the difference.

6. *Elasticity*.—A piece of India rubber, an old watch-spring, a bow or the boys' play-ball will show that, when the particles are disturbed, either by blows or pressure, they will tend to resume their original shape. — *John G. Moore in Pennsylvania School Journal.*

### 2. TWELVE METHODS OF TEACHING SPELLING.

Spelling is usually considered a dry and uninteresting study, and many a teacher gives a sigh of relief as he dismisses his last spelling